

RECEIVED
CENTRAL FAX CENTER

Serial No. 10/020,077
Page 2 of 10

DEC 11 2007

IN THE CLAIMS

1. (canceled)

2. (currently amended) A communications apparatus for switching among different interfaces and comprising a switch unit, the switch unit comprising:

a main switch for switching data of a fixed length; and

an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch,

wherein the communications apparatus further comprises a processor that is connected to the switch unit and processes data according to a predetermined protocol, the processor having a third buffer that is connected to the first buffer and having a fourth buffer connected to the first buffer and the second buffer, the processor performing back pressure control on the third buffer by receiving a flow control signal that is sent from the second buffer when the first buffer assumes a predetermined state.

3. (previously presented) A communications apparatus for switching among different interfaces and comprising a switch unit, the switch unit comprising:

a main switch for switching data of a fixed length; and

an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch,

wherein the communications apparatus further comprises a processor that is connected to the switch unit and processes data according to a predetermined protocol, the processor having a third buffer and a fourth buffer connected to the first buffer and the second buffer, the processor

84262101_1

Serial No. 10/020,077

Page 3 of 10

performing back pressure control on the first buffer when the fourth buffer assumes a predetermined state.

4. (previously presented) The communications apparatus as claimed in claim 2, wherein the processor further performs back pressure control on the first buffer when the second buffer assumes a predetermined state.

5. (currently amended) A communications apparatus for switching among different interfaces and comprising a switch unit, the switch unit comprising:

a main switch for switching data of a fixed length; and

an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch,

wherein the communications apparatus further comprises a processor that is connected to the switch unit and processes data according to a predetermined protocol, the processor having a third buffer that is connected to the first buffer and having a fourth buffer connected to the first buffer and the second buffer, the processor performing back pressure control on the fourth buffer when receiving a request for back pressure control from an apparatus that is connected to the processor, and the processor further performing back pressure control on the first buffer when the fourth buffer assumes a predetermined state.

6. (original) The communications apparatus as claimed in claim 2, wherein the back pressure control request is formed by a predetermined flow control cell.

84262101_1

Serial No. 10/020,077

Page 4 of 10

7. (original) The communications apparatus as claimed in claim 3, wherein the back pressure control request is formed by a predetermined flow control cell.

8. (original) The communications apparatus as claimed in claim 4, wherein the back pressure control request is formed by a predetermined flow control cell.

9. (original) The communications apparatus as claimed in claim 2, wherein the back pressure control is performed by predetermined Quality of Service (QoS) class units.

10. (original) The communications apparatus as claimed in claim 3, wherein the back pressure control is performed by predetermined Quality of Service (QoS) class units.

11. (original) The communications apparatus as claimed in claim 4, wherein the back pressure control is performed by predetermined Quality of Service (QoS) class units.

12. (original) The communications apparatus as claimed in claim 5, wherein the back pressure control is performed by predetermined Quality of Service (QoS) class units.

13. (original) The communications apparatus as claimed in claim 2, wherein back pressure control is performed in circuit units.

14. (original) The communications apparatus as claimed in claim 3, wherein back pressure control is performed in circuit units.

84262101_1

Serial No. 10/020,077
Page 5 of 10

15. (original) The communications apparatus as claimed in claim 4, wherein back pressure control is performed in circuit units.

16. (original) The communications apparatus as claimed in claim 5, wherein back pressure control is performed in circuit units.

17. (original) The communications apparatus as claimed in claim 2, wherein the predetermined state is determined at predetermined QoS class units.

18. (original) The communications apparatus as claimed in claim 3, wherein the predetermined state is determined at predetermined QoS class units.

19. (original) The communications apparatus as claimed in claim 4, wherein the predetermined state is determined at predetermined QoS class units.

20. (original) The communications apparatus as claimed in claim 2, wherein the predetermined state is determined at circuit units.

21. (original) The communications apparatus as claimed in claim 3, wherein the predetermined state is determined at circuit units.

84262101_1

Serial No. 10/020,077

Page 6 of 10

22. (original) The communications apparatus as claimed in claim 4, wherein the predetermined state is determined at circuit units.

23. (original) The communications apparatus as claimed in claim 2, wherein the processor has a local switch that supplies data received from the switch unit to an internal buffer corresponding to the appropriate circuit.

24. (original) The communications apparatus as claimed in claim 2, wherein:
the processor has a local switch equipped with a buffer that temporarily stores data received from the switch unit; and
the local switch itself has another local switch that reads the data from the buffer and supplies the data so read to an internal buffer of the appropriate circuit.

25. (original) The communications apparatus as claimed in claim 12, wherein a terminal unit is provided between the processor and the circuits, the terminal unit comprising:
a buffer provided at each circuit; and
a buffer capacity monitor that monitors a capacity of the buffer and controls the buffer so as to temporarily store data received from the switch unit.

26. (currently amended) A communications apparatus for switching among different interfaces and comprising a working system and a passive system, each of the working system and the passive system including a switch unit, the switch unit comprising:
a main switch for switching data of a fixed length; and

84262101_1

Serial No. 10/020,077

Page 7 of 10

an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch, wherein:

~~the switch unit is multiplexed;~~

the working~~ing~~ system receiving a back pressure control request ~~from~~ from the passive system discards that back pressure control request; and

the passive system receiving another back pressure control request from the working system does not discard the another back pressure control request.

27. – 30. (canceled)

31. (previously presented) A communications control method for switching among different interfaces, the communications control method being performed by a communications apparatus that includes a switch unit and a processor connected to the switch unit processing data according to a predetermined protocol, the method comprising the steps of:

the switch unit switching data of a fixed length after once buffering the data into a first buffer; and

the switch unit outputting the switched data after once buffering the switched data into a second buffer; wherein the processor includes a third buffer connected to the first buffer and a fourth buffer connected to the second buffer, and the processor performs back pressure control on the first buffer when the fourth buffer assumes a predetermined state.

84262101_1